Liquid-Liquid Equilibria in the System Toluene + Water + Methyldiethanolamine

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The absorption of toluene in aqueous methyldiethanolamine solutions used for the removal of acid gases from natural gases and refinery gases is an environmental problem as the toluene is released to the atmosphere when the solution is regenerated. In this work, we have measured the liquid-liquid equilibria involved between toluene and the aqueous methyldiethanolamine solution. Experiments were conducted at six temperatures in the range from 0 to 180 °C. The experimental data have been correlated using the NRTL equation.